

Yet a similar situation may be crossed, and the height gained, in one movement, as appears by calculation, for about 8,000l.; consequently 19,000l. is saved, which is almost the whole expence of the aqueduct.

Without entering into tedious estimates to prove this, I conceive the common sense of those who have the least knowledge of the subject, will inform them of the reason of these savings; but to the speculating reader, if he observes by the plate that the part crossing the river is a simple stage, the weight of which, compared with the load of water and stone which press on the piers of an aqueduct, is trifling; consequently the piers are but as columns without arches, and the masonry, which in aqueducts is almost the whole expence, is here so contracted as to be, comparatively, scarce worth mentioning; iron arches or braces being adopted, the expence of which is not more than the centres to build an arch of stone, and the continued plane performing the part of locks, of which he has had a comparative view, I conceive it will exhibit the obvious reason of such important savings.

This combination is indeed so material, that, in projecting a line of canal where a river or deep valley is to be crossed, it should be well considered, whether it can conveniently be brought to such a situation that the ground will admit of rising at the time of crossing; which, even on the small system, will save time and expence.

CHAP.

